

Examiners Cap

AN 105:212943 HCA
TI **Copper** wires for bonding semiconductor chip electrodes and leads
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PA Tanaka Denshi Kogyo K. K., Japan
SO Jpn. Kokai Tokkyo Koho, 4 pp.
CODEN: JKXXAF

DT Patent
LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	JP 61113740	A2	19860531	JP 1984-236410	19841109
AB	The Cu wires contain .gtoreq.1 of Ti 3-50, Cr 3-50, Mn 3-50, Fe 3-50, Ni 5-100, Co 5-100, Zr 3-50, Nb 3-50, Pd 5-100, Ag 5-100, In 5-100, and Sn 5-100 ppm for a total of 6-150 ppm. Au wires are replaceable with the Cu wires for bonding semiconductors. Thus, a Cu (purity 99.999%) ingot contg. Ti 2 and Zr 2 ppm was repeatedly drawn and annealed to give a Cu wire (diam. 25.mu.). The wire showed tensile strength 10.3 g, elongation 20%, high-temp. strength 9.7 g, elongation 15%, and bonding strength (with a semiconductor) 5.2 g, compared with 6.5 g, 4%, and 3 g and 6% for a Cu wire contg. 5 ppm Be.				